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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,573	12/12/2001	Herve Saint	Q 67618	9696

23373 7590 04/17/2007  
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WASHINGTON, DC 20037

EXAMINER
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SHARMA, SUJATHA R

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/009,573		SAINCT, HERVE	
	<b>Examiner</b>		<b>Art Unit</b>	
	Sujatha Sharma		2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2007.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2-7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-7,9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5-7,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baum [WO 97/15992] in view of Schultz [US 6,345,186].

Regarding claims 7,9 Baum discloses an air-borne platform that carries a communication payload. Baum further discloses a method where the aircraft includes propulsion means (see element 15 in fig. 2) enabling said aircraft to maintain itself, to move itself and to orient itself solely at high altitude (see page 6, line 23 – page 7, line 3, page 11, lines 21-28). Baum further discloses transceiver means for radio waves (see page 3, lines 1-15). Further Baum discloses a method wherein the said aircraft is being taken to an altitude and a position such that the said transceiver means lies in the same direction relative to at least one user of said telecommunication network (see page 3, lines 22-29, page 4, line 5 – page 5, line 20).

Baum, however, does not explicitly disclose that the radio relay on the ground is replaced by said aircraft.

Schultz, in the same field of endeavor, teaches a method where a ground based radio relay system can be replaced by means of airborne apparatus in order to enable the ground based cellular radio system to source a call to the aircraft telephone. See 1, line 66 – col. 2, line 3.

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Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to use airborne apparatus as taught by Schultz in Baum's invention in order to provide better radio coverage than existing ground relays and thus reduce the risk of dropped calls.

Regarding claim 5, Baum further discloses a method of getting an aircraft onto station, the method being characterized by the following steps:

- on the ground, said aircraft (50 in Fig. 8) is secured to an independent transporter (51 in Fig.8)
- said transporter (51 in Fig. 8) takes said aircraft to a high altitude (position D in Fig. 8) at which it is to operate using solely propulsion means of said transporter (see page 13, lines 8 – 27)
- said transporter releases said aircraft at the altitude and at least approximately at the intended location of its operating station (see fig. 8 and page 13, lines 8-27)
- if necessary, said aircraft uses its own propulsion means (15 in Fig. 2) to put itself on station and take up its proper orientation (see page 6, line 23 – page 7, line 3, page 11, lines 21-28)

Regarding claim 6, Baum further discloses a method where the transporter further comprises of at least one balloon (51,57 in Fig. 8) suitable for rising to high altitude

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3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baum [WO 97/15992] and Schultz [US 6,345,186] in view of Wong [WO 97/33790].

Regarding claim 2, Baum and Schultz disclose all the limitations. However they fail to disclose a method wherein the propulsion means comprising at least one plasma thruster, which operates using plasma, created from the surrounding air at said high altitude.

Wong, in the same field of endeavor, teaches a method of using a new propulsion system to overcome the inefficiencies of the conventional propellers. Further Wong teaches a method where the engine includes an electrode and the emitted electrons are accelerated by the surrounding electric field forming plasma of electrons, which is then used to propel the aircraft. See page 16, line 7 – page 17, line 15.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Wong to Baum and Schultz in order to use a more efficient method of propulsion.

4. Claim3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baum [WO 97/15992] and Schultz [US 6,345,186] in view of Lee [US 6,425,552].

Regarding claim 3, Baum as treated in claim 7 discloses all the limitations as claimed. However, he does not disclose the use of solar generator in the aircraft, which is cooled by convection (dissipating or radiating heat to the surrounding area).

Lee, in the same field of endeavor, teaches the use of solar generator in the aircraft, which is cooled by convection See col. 23, lines 50-65

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Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Lee to Baum and Schultz in order to maintain a geostatic position for high altitude platforms.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baum [WO 97/15992] and Schultz [US 6,345,186] in view of Nishizawa [JP 63240079]

Regarding claim 4, Baum as treated in claim 7 discloses all the limitations as claimed. However, he does not disclose the use of at least one storage battery in the aircraft having superconductive components.

Nishizawa, in the same field of endeavor, teaches the use of at least one storage battery in the aircraft having superconductive components. See abstract.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Nishizawa to Baum and Schultz in order to prevent the deterioration of the efficiency a storage battery such as a solar cell.

### ***Response to Arguments***

Applicant's arguments with respect to claims 2-7,9 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

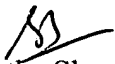
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 571-272-7886. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Sujatha Sharma  
April 11, 2007

  
MATTHEW ANDERSON  
SUPERVISORY PATENT EXAMINER